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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,991	06/27/2005	Karsten Wermbter	VO-712	1174
42419	7590	06/13/2006	EXAMINER	
PAULEY PETERSEN & ERICKSON 2800 WEST HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195				PAIK, SANG YEOP
		ART UNIT		PAPER NUMBER
		3742		

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/516,991	WERMBTER ET AL.
	Examiner	Art Unit
	Sang Y. Paik	3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/27/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

1. The abstract of the disclosure is objected to because it is too long having more than 150 words. Correction is required. See MPEP § 608.01(b).
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8-12 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallgren (US 6,225,608) in view of McCollister (US 4,011,091).

Kallgren shows the cooking system claimed including a cooking surface made of a glass ceramic material such as the lithium aluminosilicate material with heating elements arranged on the underside of the cooking surface plate, an electrical insulating layer made of alumina provided on the underside of the glass ceramic plate and between the plate and the heating elements, and an insulation layer made of silica over the heating elements. However, Kallgren

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does not explicitly show the glass ceramic plate includes the crystalline phases of one of the high quartz mixed crystal and keatite.

McCollister shows that the lithium aluminosilicates that consist of high quartz crystalline phase forming keatite solids, and McCollister shows the thermal expansion including the claimed coefficient of the thermal expansion. In view of McCollister, it would have been obvious to adapt Kallgren with the LAS glass ceramic formed from the crystalline phases that are well known in the art to form such lithium aluminosilicates that can provide a high temperature structure integrity.

With respect to the claimed heat conductivity, McCollister shows the same composition as that of the claimed lithium aluminosilicate, and it would inherently include the claimed heat conductivity since the chemical composition and its properties are inseparable.

With respect to the recited porous insulating layer, Kallgren shows that the insulation layer is made of alumina, which is same as the claimed material, and the porous property of such layer would inherently be present.

With respect to claims 4 and 18, McCollister having the composition as that of the claimed system, the recited arching, the resistance, the breakdown resistance and the leakage current would be inherently present.

Also, with respect to claim 16, since the thin strips of primary ceramic particles are formed as the result of the insulating layer being bonded to the glass ceramic plate, Kallgren having the same insulating material, alumina, being bonded to the lithium aluminosilicate glass ceramic plate through the chemical adhesion mechanism such as the chemical vapor deposition would also inherently form such thin strips having the claimed particles widths.

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5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallgren in view of McCollister as applied to claims 1-4, 8-12 and 15-18 above, and further in view of Siegla (US 3,646,321) or Bouchard et al (US 3,733,462).

Kallgren in view of McCollister shows the system claimed except the heating elements made from the claimed materials including nickel and chromium base alloy.

Siegla and Bouchard show that it is well known in the art to use the nickel and chromium base alloy as the heating element material. In view of Siegla or Bouchard, it would have been obvious to one of ordinary skill in the art to adapt Kallgren, as modified by McCollister, with the nickel and chromium base alloy as the heating element material that is well known in the art to as alternative materials for the heating element.

The methods recited in the claims render them as product by process, and since the process does not define the patentability of a structure, the recited claims are deemed met by the applied prior art that shows or teaches the claimed structure.

6. Claims 6, 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallgren in view of McCollister as applied to claims 1-4, 8-12 and 15-18 above, and further in view of Zhou (US 2003/0000938) or Uchiyama et al (US 6,534,751).

Kallgren in view of McCollister shows the system claimed except the heating elements made from the claimed materials including glass frit.

Zhou and Uchiyama shows a ceramic heater having a resistive heating element having silver and palladium along with glass frits to improve the adhesion of the heating element to the base ceramic substrate.

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In view of Zhou and Uchiyama, it would have been obvious to one of ordinary skill in the art to adapt Martin with the claimed Ag/Pd heating paste with glass frits as an alternative heating element that can have an improved adhesion to the ceramic substrate and withstand a high heating temperature.

The methods recited in the claims render them as product by process, and since the process does not define the patentability of a structure, the recited claims are deemed met by the applied prior art that shows or teaches the claimed structure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (9:00-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sang Y Paik
Primary Examiner
Art Unit 3742

S.Y

syp